

In the Claims

For the convenience of the Examiner, all pending claims are provided below, even though no amendments have been made.

1. A system operable on at least one computer for displaying planning information associated with a supply chain, comprising:

a planning engine operable to access an enterprise model representing a supply chain that involves a plurality of products and resources and to use the enterprise model to generate planning information for the supply chain according to one or more specified constraints and one or more optimization criteria; and

a presentation interface operable to generate a first visual display for selected planning information, the first visual display comprising a cashflow report providing a net present value for one or more products in the supply chain, each net present value reflecting revenues and expenses associated with a corresponding product according to time periods in which the revenues and expenses occur.

2. The system of Claim 1, wherein the cashflow report includes a two-dimensional display comprising:

a first panel presenting a list of the products;

a second panel presenting the net present value for each listed product; and

a third panel presenting a plurality of columns, each column corresponding to a specified time period and providing a net cashflow associated with each listed product during that time period.

3. The system of Claim 1, wherein the cashflow report includes a three-dimensional display comprising:

a bottom panel including a first axis specifying a plurality of products, a second axis specifying a plurality of time periods, and a plurality of bars each associated with a particular time period and a particular product, each bar having a height relating to a number of units of the associated product produced during the associated time period;

a left panel including a bar graph indicating a net cash flow for each of the products specified by the first axis in the bottom panel; and

a right panel including a bar graph indicating a net cash flow for each of the time periods specified by the second axis in the bottom panel.

4. The system of Claim 1, wherein the presentation interface is further operable to generate a second visual display comprising a product report, the product report comprising:

a first bar graph indicating, for one or more products in the supply chain, a percentage of forecasted demand satisfied by allocated production;

a second bar graph indicating a profit margin per unit for each of the products; and

a third bar graph indicating, for each of the products, a number of units produced for each time interval a specified resource is in use.

5. The system of Claim 1, wherein the presentation interface is further operable to generate a second visual display comprising a product mix report that includes a pie chart indicating one or more products' share of an allocated mix of production.

6. The system of Claim 1, wherein the presentation interface is further operable to generate a second visual display comprising a utilization report that indicates, for a plurality of resources, a percentage of time during which each resource is in use.

7. The system of Claim 1, wherein the presentation interface is further operable to generate a second visual display comprising a utilization report that indicates, for a plurality of purchased raw materials, a percentage of each raw material that is utilized.

8. A system operable on at least one computer for displaying planning information associated with a supply chain, comprising:

a planning engine operable to access an enterprise model representing a supply chain that involves a plurality of products and resources and to use the enterprise model to generate planning information for the supply chain according to one or more specified constraints and one or more optimization criteria; and

a presentation interface operable to generate a first visual display for selected planning information, the first visual display comprising a profit margin report that indicates, for one or more products associated with a specified resource, a profit margin for each time interval the resource is in use.

9. The system of Claim 8, wherein the profit margin report includes a graph comprising:

a first axis scaled in terms of profit margins per unit;

a second axis scaled in terms of numbers of units produced for each time interval the specified resource is in use; and

a plurality of nodes representing the products associated with the specified resource, each node located at a position in the graph corresponding to the values for the product on the first and second axes.

10. The system of Claim 8, wherein the presentation interface is further operable to generate a second visual display comprising a product report, the product report comprising:

a first bar graph indicating, for one or more products in the supply chain, a percentage of forecasted demand satisfied by allocated production;

a second bar graph indicating a profit margin per unit for each of the products; and

a third bar graph indicating, for each of the products, a number of units produced for each time interval a specified resource is in use.

11. The system of Claim 8, wherein the presentation interface is further operable to generate a second visual display comprising a product mix report that includes a pie chart indicating one or more products' share of an allocated mix of production.

12. The system of Claim 8, wherein the presentation interface is further operable to generate a second visual display comprising a utilization report that indicates, for a plurality of resources, a percentage of time during which each resource is in use.

13. The system of Claim 8, wherein the presentation interface is further operable to generate a second visual display comprising a utilization report that indicates, for a plurality of purchased raw materials, a percentage of each raw material that is utilized.

14. A system operable on at least one computer for displaying planning information associated with a supply chain, comprising:

a planning engine operable to access an enterprise model representing a supply chain that involves a plurality of products and resources and to use the enterprise model to generate planning information for the supply chain according to one or more specified constraints and one or more optimization criteria; and

a presentation interface operable to generate a first visual display for selected planning information, the first visual display comprising a report that indicates, for one or more products in the supply chain, a forecasted demand and a number of units allocated for production;

the report including a bar graph comprising:

a first axis scaled in terms of numbers of units;

a bar, associated with a product in the supply chain, extending from a second axis to a height corresponding to a first position on the first axis, the first position indicating a number of units of the product that could be sold according to customer demand; and

a marker on the bar corresponding to a second position on the first axis, the second position indicating a number of units of the product allocated for production.

16. The system of Claim 14, wherein the report indicates, for one or more products associated with a specified resource, a forecasted demand and a number of units allocated for production.

17. The system of Claim 16, wherein the report includes a bar graph comprising:

a first axis scaled in terms of profit margins for each time interval the specified resource is used;

a second axis scaled in terms of number of units;

a bar, associated with a product associated with the specified resource, extending from a first position on the first axis to a height corresponding to a second position on the second axis, the first position indicating a profit margin for each time interval the specified resource is in use with respect to the product associated with the bar, the second position indicating a number of units of the product associated with the bar that could be sold according to customer demand; and

a marker on the bar corresponding to a third position on the second axis, the third position indicating a number of units of the product associated with the bar allocated for production.

18. The system of Claim 14, wherein the presentation interface is further operable to generate a second visual display comprising a product report, the product report comprising:

a first bar graph indicating, for one or more products in the supply chain, a percentage of forecasted demand satisfied by allocated production;

a second bar graph indicating a profit margin per unit for each of the products; and

a third bar graph indicating, for each of the products, a number of units produced for each time interval a specified resource is in use.

19. The system of Claim 14, wherein the presentation interface is further operable to generate a second visual display comprising a product mix report that includes a pie chart indicating one or more products' share of an allocated mix of production.

20. The system of Claim 14, wherein the presentation interface is further operable to generate a second visual display comprising a utilization report that indicates, for a plurality of resources, a percentage of time during which each resource is in use.

21. The system of Claim 14, wherein the presentation interface is further operable to generate a second visual display comprising a utilization report that indicates, for a plurality of purchased raw materials, a percentage of each raw material that is utilized.

22. A system operating on at least one computer for displaying planning information associated with a supply chain, comprising:

a planning engine operable to access an enterprise model representing a supply chain that involves a plurality of products and resources and to use the enterprise model to generate planning information for the supply chain according to one or more specified constraints and one or more optimization criteria; and

a presentation interface operable to generate a first visual display for selected planning information, the first visual display comprising a plant distribution report that includes a bottom panel comprising:

a first axis specifying a plurality of locations;

a second axis specifying profit margins per hour; and

a plurality of icons representing resources in the supply chain, each icon positioned relative to the first axis to indicate a location associated with a corresponding resource and relative to the second axis to indicate a profit margin per hour associated with the corresponding resource.

23. The system of Claim 22, wherein the plant distribution report further comprises a side panel displaying bars corresponding to the locations specified by the first axis in the bottom panel, each bar providing information relating to a selected parameter.

24. The system of Claim 22, wherein the plant distribution report further comprises a side panel displaying planning information relating to a selected location from the first axis in the bottom panel.

25. A method operable on at least one computer for displaying planning information associated with a supply chain, comprising:

at a planning engine, accessing an enterprise model representing a supply chain that involves a plurality of products and resources;

at the planning engine, using the enterprise model to generate planning information for the supply chain according to one or more specified constraints and one or more optimization criteria; and

at a presentation interface, generating a first visual display for selected planning information, the first visual display comprising a cashflow report providing a net present value for one or more products in the supply chain, each net present value reflecting revenues and expenses associated with a corresponding product according to time periods in which the revenues and expenses occur.

26. The method of Claim 25, wherein the cashflow report includes a two-dimensional display comprising:

a first panel presenting a list of the products;

a second panel presenting the net present value for each listed product; and

a third panel presenting a plurality of columns, each column corresponding to a specified time period and providing a net cashflow associated with each listed product during that time period.

27. The method of Claim 25, wherein the cashflow report includes a three-dimensional display comprising:

a bottom panel including a first axis specifying a plurality of products, a second axis specifying a plurality of time periods, and a plurality of bars each associated with a particular time period and a particular product, each bar having a height relating to a number of units of the associated product produced during the associated time period;

a left panel including a bar graph indicating a net cash flow for each of the products specified by the first axis in the bottom panel; and

a right panel including a bar graph indicating a net cash flow for each of the time periods specified by the second axis in the bottom panel.

28. The method of Claim 25, further comprising, at the presentation interface, generating a second visual display comprising a product report, the product report comprising:

a first bar graph indicating, for one or more products in the supply chain, a percentage of forecasted demand satisfied by allocated production;

a second bar graph indicating a profit margin per unit for each of the products; and

a third bar graph indicating, for each of the products, a number of units produced for each time interval a specified resource is in use.

29. The method of Claim 25, further comprising, at the presentation interface, generating a second visual display comprising a product mix report that includes a pie chart indicating one or more products' share of an allocated mix of production.

30. The method of Claim 25, further comprising, at the presentation interface, generating a second visual display comprising a utilization report that indicates, for a plurality of resources, a percentage of time during which each resource is in use.

31. The method of Claim 25, further comprising, at the presentation interface, generating a second visual display comprising a utilization report that indicates, for a plurality of purchased raw materials, a percentage of each raw material that is utilized.

32. A method operable on at least one computer for displaying planning information associated with a supply chain, comprising:

at a planning engine, accessing an enterprise model representing a supply chain that involves a plurality of products and resources;

at the planning engine, using the enterprise model to generate planning information for the supply chain according to one or more specified constraints and one or more optimization criteria; and

at a presentation interface, generating a first visual display for selected planning information, the first visual display comprising a profit margin report that indicates, for one or more products associated with a specified resource, a profit margin for each time interval the resource is in use.

33. The method of Claim 32, wherein the profit margin report includes a graph comprising:

a first axis scaled in terms of profit margins per unit;

a second axis scaled in terms of numbers of units produced for each time interval the specified resource is in use; and

a plurality of nodes representing the products associated with the specified resource, each node located at a position in the graph corresponding to the values for the product on the first and second axes.

34. The method of Claim 32, further comprising, at the presentation interface, generating a second visual display comprising a product report, the product report comprising:

a first bar graph indicating, for one or more products in the supply chain, a percentage of forecasted demand satisfied by allocated production;

a second bar graph indicating a profit margin per unit for each of the products; and

a third bar graph indicating, for each of the products, a number of units produced for each time interval a specified resource is in use.

35. The method of Claim 32, further comprising, at the presentation interface, generating a second visual display comprising a product mix report that includes a pie chart indicating one or more products' share of an allocated mix of production.

36. The method of Claim 32, further comprising, at the presentation interface, generating a second visual display comprising a utilization report that indicates, for a plurality of resources, a percentage of time during which each resource is in use.

37. The method of Claim 32, further comprising, at the presentation interface, generating a second visual display comprising a utilization report that indicates, for a plurality of purchased raw materials, a percentage of each raw material that is utilized.

38. A method operable on at least one computer for displaying planning information associated with a supply chain, comprising:

- at a planning engine, accessing an enterprise model representing a supply chain that involves a plurality of products and resources;

- at the planning engine, using the enterprise model to generate planning information for the supply chain according to one or more specified constraints and one or more optimization criteria; and

- at a presentation interface, generating a first visual display for selected planning information, the first visual display comprising a report that indicates, for one or more products in the supply chain, a forecasted demand and a number of units allocated for production;

- the report including a bar graph comprising:

- a first axis scaled in terms of numbers of units;

- a bar, associated with a product in the supply chain, extending from a second axis to a height corresponding to a first position on the first axis, the first position indicating a number of units of the product that could be sold according to customer demand; and

- a marker on the bar corresponding to a second position on the first axis, the second position indicating a number of units of the product allocated for production.

39. The method of Claim 38, wherein the report indicates, for one or more products associated with a specified resource, a forecasted demand and a number of units allocated for production.

40. The method of Claim 38, wherein the report includes a bar graph comprising:

- a first axis scaled in terms of profit margins for each time interval the specified resource is used;

- a second axis scaled in terms of number of units;

- a bar, associated with a product associated with the specified resource, extending from a first position on the first axis to a height corresponding to a second position on the second axis, the first position indicating a profit margin for each time interval the specified resource is in use with respect to the product associated with the bar, the second position indicating a number of units of the product associated with the bar that could be sold according to customer demand; and

a marker on the bar corresponding to a third position on the second axis, the third position indicating a number of units of the product associated with the bar allocated for production.

41. The method of Claim 38, further comprising, at the presentation interface, generating a second visual display comprising a product report, the product report comprising:

a first bar graph indicating, for one or more products in the supply chain, a percentage of forecasted demand satisfied by allocated production;

a second bar graph indicating a profit margin per unit for each of the products; and

a third bar graph indicating, for each of the products, a number of units produced for each time interval a specified resource is in use.

42. The method of Claim 38, further comprising, at the presentation interface, generating a second visual display comprising a product mix report that includes a pie chart indicating one or more products' share of an allocated mix of production.

43. The method of Claim 38, further comprising, at the presentation interface, generating a second visual display comprising a utilization report that indicates, for a plurality of resources, a percentage of time during which each resource is in use.

44. The method of Claim 38, further comprising, at the presentation interface, generating a second visual display comprising a utilization report that indicates, for a plurality of purchased raw materials, a percentage of each raw material that is utilized.

45. A method operating on at least one computer for displaying planning information associated with a supply chain, comprising:

at a planning engine, accessing an enterprise model representing a supply chain that involves a plurality of products and resources;

at the planning engine, using the enterprise model to generate planning information for the supply chain according to one or more specified constraints and one or more optimization criteria; and

at a presentation interface, generating a first visual display for selected planning information, the first visual display comprising a plant distribution report that includes a bottom panel comprising:

a first axis specifying a plurality of locations;

a second axis specifying profit margins per hour; and

a plurality of icons representing resources in the supply chain, each icon positioned relative to the first axis to indicate a location associated with a corresponding resource and relative to the second axis to indicate a profit margin per hour associated with the corresponding resource.

46. The method of Claim 45, wherein the plant distribution report further comprises a side panel displaying bars corresponding to the locations specified by the first axis in the bottom panel, each bar providing information relating to a selected parameter.

47. The method of Claim 45, wherein the plant distribution report further comprises a side panel displaying planning information relating to a selected location from the first axis in the bottom panel.